Amendments to the Claims:

This listing of claims will replace all prior versions, and listings of claims in the application:

Listing of Claims:

1. (currently amended) A method of preparing a composition comprising an agent that affects processing of amyloid precursor protein to beta-amyloid peptide, the method comprising: providing a [[A]] transgenic rodent ~~nonhuman animal or stem cell~~ comprising a diploid genome comprising a transgene encoding a ~~heterologous~~ human APP polypeptide comprising the Swedish mutation wherein the amino acid residues at positions corresponding to positions 595 and 596 in human APP^{695} are asparagines and leucine, respectively, wherein the transgene is expressed to produce a human APP polypeptide having the Swedish mutation and wherein the polypeptide is processed to detectable quantities of ATF-βAPP in a brain homogenate, which are at least two-fold higher than the quantities of ATF-βAPP produced from wild type human βAPP in an equivalent transgenic animal;

contacting the transgenic rodent with the agent;

monitoring cleavage of the amyloid precursor protein polypeptide between the N-terminus of the beta amyloid peptide and the ATF-betaAPP in the contacted transgenic rodent compared to the cleavage in a control transgenic rodent to indicate the agent affects the cleavage; and

incorporating the agent into a composition with a pharmaceutical carrier.

2. (currently amended) ~~A transgenic nonhuman animal of~~ The method of claim 1, wherein the animal is murine.

3. (canceled)

4. (currently amended) ~~A transgenic nonhuman animal~~ The method of claim 3, wherein the transgene is nonhomologously integrated.

5. (canceled)

6. (currently amended) ~~A transgenic nonhuman animal~~ The method of claim 1, wherein the ~~heterologous~~ human APP polypeptide comprising the Swedish mutation is expressed under the transcriptional control of a neural specific enolase promoter.

7-10. (canceled).

11. (new) The method of claim 1, wherein the agent inhibits a beta-secretase activity associated with the cleavage.

12. (new) The method of claim 1, wherein the dosage of the agent is from 10 μg/kg to1 mg/kg.